GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:1872
ANSWERED ON:09.03.2016
Illegal Export of Thorium
Patil Shri A.T. (Nana)

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether the Government has seen the recent media reports regarding large scale illegal export of thorium rich sand from Tamil Nadu to China and Europe via Sri Lanka;

(b)if so, the details thereof;

(c)the preventive steps taken by the Government in this regard; and

(d)the outcome of the vigilance probe about illegal sand smuggling?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a) Yes, Sir.

(b) Recently, there have been some media reports that private companies have been allowed to export monazite of millions of tonnes, and that India has lost large quantities of thorium of value worth lakhs of crores of rupees. The report alleges that Thorium resources, which are found in the beach sand minerals in the coastal areas of the country, which are being allowed to be indiscriminately exported abroad on a large-scale, depriving the country of these resources in the long run. The media reports are a large number of conjectures, baseless presumptions and some outright inaccuracies and fallacies.

The coastal region of peninsular India contains economically important minerals such as garnet, ilmenite, leucoxene, monazite, rutile, sillimanite and zircon commonly known as beach sand minerals. Of these, monazite is defined as a 'prescribed substance' under the Atomic Energy Act, 1962 (AE Act) as amended in 2006(Notified in the Gazette of India (57), dated January 20, 2006).Atomic Minerals Directorate for Exploration and Research (AMD) of the Department of Atomic Energy (DAE) has carried out extensive surveys along the coastal region of the country to assess the distribution of beach sand minerals, including monazite. A license from the Department of Atomic Energy (DAE) under the Atomic Energy (Working of the Mines, Minerals and Handling of Prescribed Substances) Rules 1984 promulgated under the Atomic Energy Act 1962 is necessary for exporting monazite. Violation of this provision is a cognizable offence under the Code of Criminal Procedure and is punishable with imprisonment for a term, which may extend to five years or with fine or with both. DAE has not issued any license to any private entity either for production of monazite, or for its downstream processing for extracting thorium, or the export of either monazite or thorium. Export of the beach sand minerals (not monazite), falls under Open General License and does not require any authorisation from DAE.

Since the other beach sand minerals and monazite (which contains thorium) occur together, companies handling beach sand minerals have to get a license under the Atomic Energy (Radiation Protection) Rules 2004 from the Atomic Energy Regulatory Board (AERB). As per the licensing conditions, the licensee, after separating the beach sand minerals has to dispose of the tailings, which contain monazite, within its company premises or as backfill, depending on the monazite content. These institutions are under strict regulatory control. They send quarterly reports to AERB stating the amount of tailings disposed of safely either in the premises or as backfill. Inspectors from AERB survey these areas to ensure that the licensing conditions are met. Export of monazite without a license from AERB is a violation of the Atomic Energy (Radiation Protection) Rules 2004.

Indian Rare Earths Limited (IREL), a wholly owned Public Sector Undertaking of the Government of India (GOI) under DAE, is the only entity which has been permitted to produce and process monazite, and handle it for domestic use as well as for export.

Apart from thorium, monazite contains rare earths too. On account of its radio-activity and other characteristics, extracting rare earths from monazite is commercially not attractive, unless mixed rare earths have to be separated as a by-product following extraction of thorium. The annual requirement of thorium-oxide for the 300 MWe Indian Advanced Heavy Water Reactor will be about five tons, with a one-time requirement of less than sixty tons (which should remain nearly the same, even if power was increased) for the initial core.

The information available in IAEA documents, about the national nuclear programmes of different countries, does not give any indication that any country, other than India, is planning significant use of thorium either in the reactors currently under operation or in those being considered for deployment in the near future. Hence, it is unlikely that there is a demand overseas for large amounts of thorium. In view of the above, the media reports, alleging illegal exports of huge quantities of thorium out of the country are not based on the facts

(c) & (d) Does not arise in view of the reply at (b) above

*****